GLOBAL CLIMATE HIGHLIGHTS

Major Climate Events and Anomalies as of April 25, 1992

1. Western United States:

STILL VERY WARM.

Unusually warm weather persisted across the western United States and returned to southwestern Canada. Temperatures averaged as much as 5°C above normal in California and soared above 35°C in parts of Arizona [20 weeks].

2. South-Central United States:

RAIN SHOWERS CONTINUE.

More than 110 mm of rain drenched east-central and southern Texas as six-week surpluses reached 160 mm. Precipitation amounts to the north and west were generally less than 40 mm [28 weeks].

3. West-Central South America:

COAST REMAINS WARM.

Unseasonably high temperatures continued along the coasts of Ecuador, Peru, and northern Chile as weekly departures approached +5°C [4 weeks].

4. Eastern Europe:

WET WEATHER PERSISTS.

Precipitation amounts of 20 to 40 mm were reported in the Baltic States, Finland, and northern Russia. Farther south, relatively dry weather brought some relief, but isolated stations received as much as 40 mm of rain [6 weeks].

5. Northern Africa and the Middle East:

COLD CONDITIONS RETURN.

Temperatures averaged as much as 6°C below normal as another cold air mass overspread the Middle East and much of northern Africa, but near normal temperatures returned to northwestern Africa. Up to 40 mm of rain was measured at a few locations in Tunisia and Turkey [6 weeks].

6. Southern Africa:

MORE HOT AND DRY WEATHER.

Readings soared to 37°C in parts of South Africa, and temperatures averaged as much as 7°C above normal across the region [13 weeks]. Although some stations received as much as 70 mm of rain, totals in most areas were generally below 10 mm and precipitation deficits since mid-March approached 150 mm [20 weeks].

7. Sri Lanka and Southern India:

LIMITED RELIEF FROM LIGHT RAINS.

Up to 70 mm of rain moistened parts of Sri Lanka, but little or no rain occurred in southern India. Precipitation deficits for the last six weeks reached 115 mm in southern India and 260 mm in Sri Lanka [12 weeks].

8. Eastern China, Korea, Taiwan, and Western Japan:

WET CONDITIONS REMAIN.

As much as 130 mm of rain drenched the region as widespread precipitation surpluses since mid-March ranged from 200 to 400 mm. According to press reports, two days of thunderstorms, hail, and high winds left 94 people dead and more than 3,400 injured in northern Hunan Province. More than 25,000 homes and 2,300 square kilometers of farmland also sustained heavy damage [12 weeks].

9. Southeastern Asia and the Philippines:

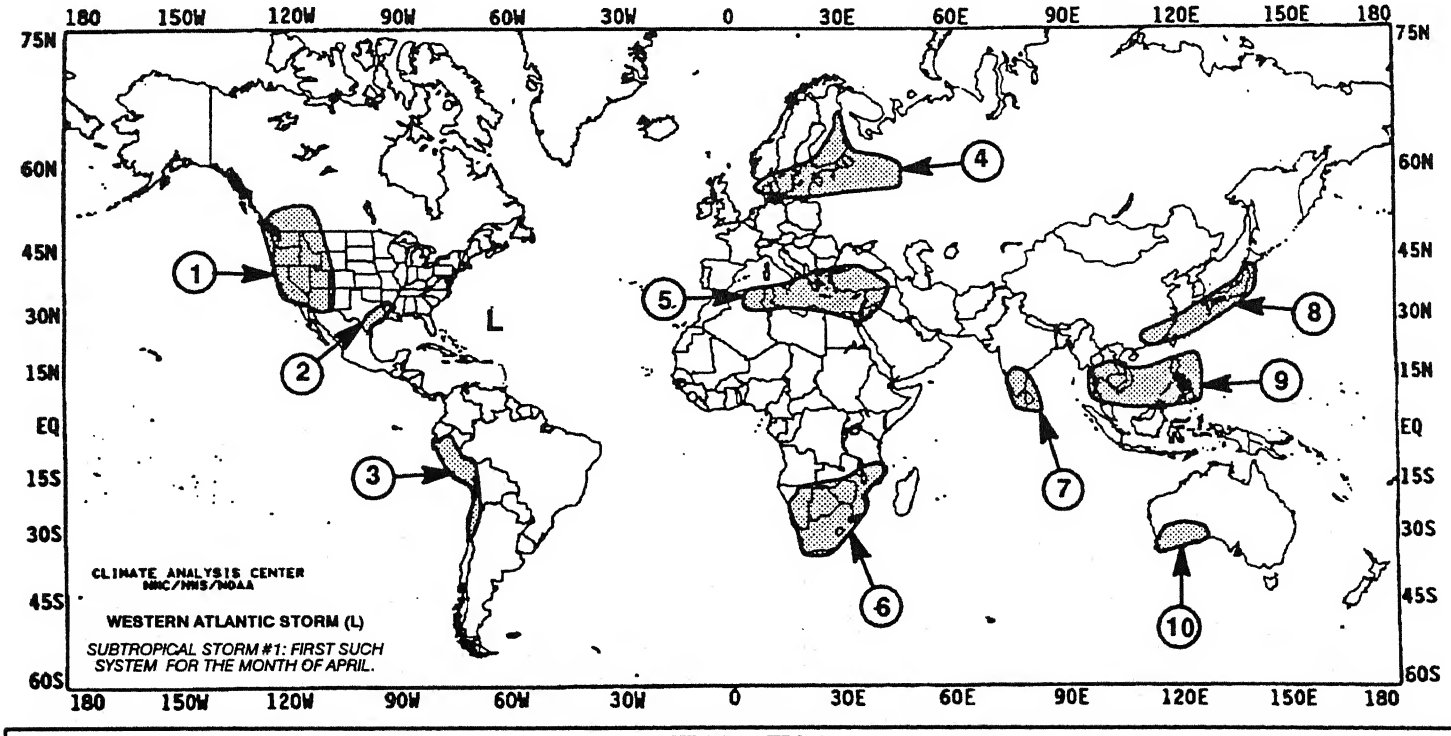
CONDITIONS REMAIN HOT AND DRY.

Temperatures averaged up to 4°C above normal, resulting in highs of 43°C in parts of Myanmar (formerly Burma) and widespread occurrences of 35°C or higher throughout the area [3 weeks]. Little or no rainfall was recorded in most of the region, but amounts of up to 75 mm were reported at isolated stations. Moisture deficits of 100 to 400 mm since mid-March have become common [17 weeks].

10. Southwestern Australia:

DRY WEATHER BRINGS RELIEF.

Drier conditions brought relief from the wet spell as little or no precipitation fell in the region [Ending at 7 weeks].



EXPLANATION

TEXT: Approximate duration of anomalies is in brackets. Precipitation amounts and temperature departures are this week's values.
MAP: Approximate locations of major anomalies and episodic events are shown. See other maps in this Bulletin for current two week temperature anomalies, four week precipitation anomalies, long-term anomalies, and other details.

UNITED STATES WEEKLY CLIMATE HIGHLIGHTS

FOR THE WEEK OF APRIL 19–25, 1992

A major spring storm produced wintry conditions for a large portion of the nation's midsection and severe weather across much of the eastern half of the U.S. More than a foot of snow buried the Black Hills and lower Missouri Valley. Up to 15 inches of snow blanketed Deadwood, SD while 14 inches fell at Brownville, NE. Strong wind gusts accompanied the storm, producing blizzard–like conditions in the Black Hills and drifts over 3 feet in eastern Nebraska. International Falls, MN received enough snow to push their seasonal total to a record 105.7". Behind the system, cold air funnelled out of Canada, yielding record daily lows in the central Plains as readings dipped into the twenties while sub–freezing highs were common across portions of the Plains and upper Midwest Monday through Wednesday. Farther south, strong thunderstorms erupted ahead of the storm as it slowly pushed to the northeast. Heavy rain, hail, damaging winds, and numerous tornadoes were reported from the southern Plains to the mid–Atlantic. Heavy rains generated flash floods from portions of the Mississippi Valley to the central Appalachians. Nearly eight inches of rain inundated southwestern Virginia while nearly half a foot soaked western North Carolina (see front cover). Flooding and a weakened earthen dam forced the evacuation of nearly 300 people in the mountains of North Carolina. Tornadoes were prevalent, especially on Monday when nearly a dozen touched down from the Deep South to the Ohio Valley. Elsewhere, dense fog contributed to two multi–vehicle accidents, involving up to 60 cars and trucks on I–64 in the Virginia Blue Ridge. Farther west, unusually cold weather settled over the Pacific Northwest, establishing several record daily lows as readings dropped into the twenties. At week's end, severe weather and heavy rain spread from the Ohio and lower Mississippi Valleys to the Atlantic Coast. Heavy rain again drenched southern Texas, where some locations have received almost twice their normal precipitation since the beginning of the year (see Figure 1, page 4).

The week began with a low in the northern Plains and a trailing cold front stretching to a second low in northern Texas. Wintry weather prevailed in the northern Plains while spring thunderstorms rocked the southern Plains on Sunday. Heavy snow and wind gusts over 60 mph battered the Black Hills. Farther south, strong thunderstorms broke out in Texas, spawning two tornadoes. The low in the southern Plains rapidly intensified, becoming the dominant storm system as it pushed into the Mississippi Valley. To the north and west of the low, heavy snow fell across portions of the northern and central Plains as warm, moist Gulf air collided with cold Canadian air. More than a foot of snow blanketed parts of Nebraska and Missouri. Ahead of the system, severe weather exploded across the Deep South northeastward into the Ohio Valley as strong thunderstorms unleashed heavy rains, hail, and several tornadoes.

At mid–week, showers and thunderstorms developing ahead of the slow moving storm system were scattered from Florida to the Northeast as heavy rains inundated parts of Virginia and the Carolinas. Snow associated with a low pressure system north of Lake Huron continued over the upper Midwest where two to four inches were reported from northeastern Minnesota into northwestern Wisconsin. Chilly weather settled into the central and northwestern states as record daily lows were established in the central Plains on Wednesday and in the Pacific Northwest on Thursday. During the latter part of the week, violent weather spread from the Mississippi Valley to the eastern seaboard. There were 130 reports of tornadoes, large hail, and damaging winds from Friday thunderstorms. Warm weather moved into the Far West while chilly conditions continued to grip the north central states.

According to the River Forecast Centers, the greatest weekly precipitation totals (more than 2 inches) fell in the southeastern quadrant of the country and in the central Appalachians (Table 1). Sections of the central states from Arkansas and eastern Oklahoma to western Wisconsin also reported over 2 inches. Light to moderate amounts were measured across the remainder of the nation from the Mississippi Valley to the Atlantic coast, southeastern Alaska, and portions of the central Rockies and western Oregon and Washington. Little or no precipitation was reported across much of New England, the Great Plains, the Rockies, the Intermountain West, the Far West, Alaska, and Hawaii.

Abnormally warm weather dominated the eastern and western thirds of the nation (Table 2). Weekly departures between +6°F and +10°F were common in the upper Ohio Valley, the lower Great Lakes, and California. Departures greater the 3°F were observed along much of the Atlantic Coast, Northeast, Ohio Valley, Southwest and Pacific Coast. Near to slightly above normal temperatures were recorded across the Southeast and Intermountain West. In Alaska, abnormally mild weather covered much of the state as weekly departures reached +9°F in Barrow and +6°F in Valdez and Yakutat.

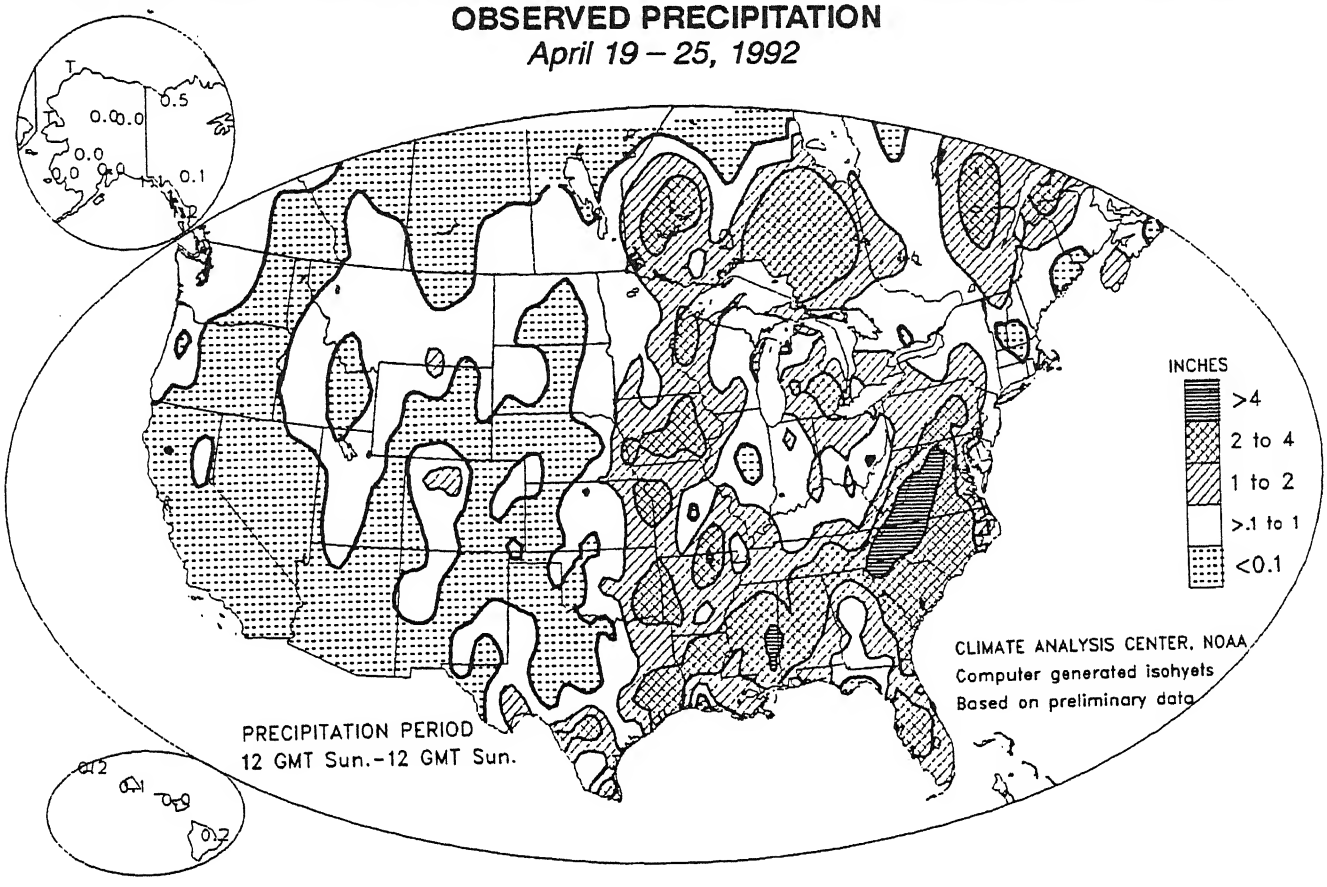
Cooler than normal conditions gripped the Great Plains and middle and upper Mississippi Valley, with weekly departures reaching –3°F. Abnormally cold weather settled in the Red and middle Missouri Valleys as temperatures plummeted from 10°F to 15°F below normal for the week (Table 3). Near to slightly below normal temperatures were observed in the Rockies. In Alaska, unseasonably cool weather occupied only parts of the west–central portions of the state with weekly departures of –4°F reported at Kotzebue and Unalakleet.

TABLE 1. *SELECTED STATIONS WITH 2.50 OR MORE INCHES OF PRECIPITATION DURING THE WEEK OF APRIL 19 – 25, 1992*

STATION	TOTAL (INCHES)	STATION	TOTAL (INCHES)
MERIDIAN NAS, MS	5.82	DANVILLE, VA	3.75
SAN ANTONIO/KELLY AFB, TX	5.06	CHARLOTTESVILLE, VA	3.40
MERIDIAN, MS	4.84	JACKSONVILLE/NEW RIVER MCAS, NC	3.05
JACKSONVILLE, FL	4.55	ASHEVILLE, NC	2.87
BRUNSWICK, GA	4.43	ORLANDO, FL	2.86
GREENVILLE, SC	4.33	LAFAYETTE, LA	2.85
GREENSBORO, NC	4.27	WATERLOO, IA	2.85
ROANOKE, VA	4.13	ANNETTE ISLAND, AK	2.69
MARTINSBURG, WV	3.92	TUSCALOOSA, AL	2.63
HICKORY, NC	3.78	KANSAS CITY/INTERNATIONAL, MO	2.51

OBSERVED PRECIPITATION

April 19 – 25, 1992



DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)

April 19 – 25, 1992

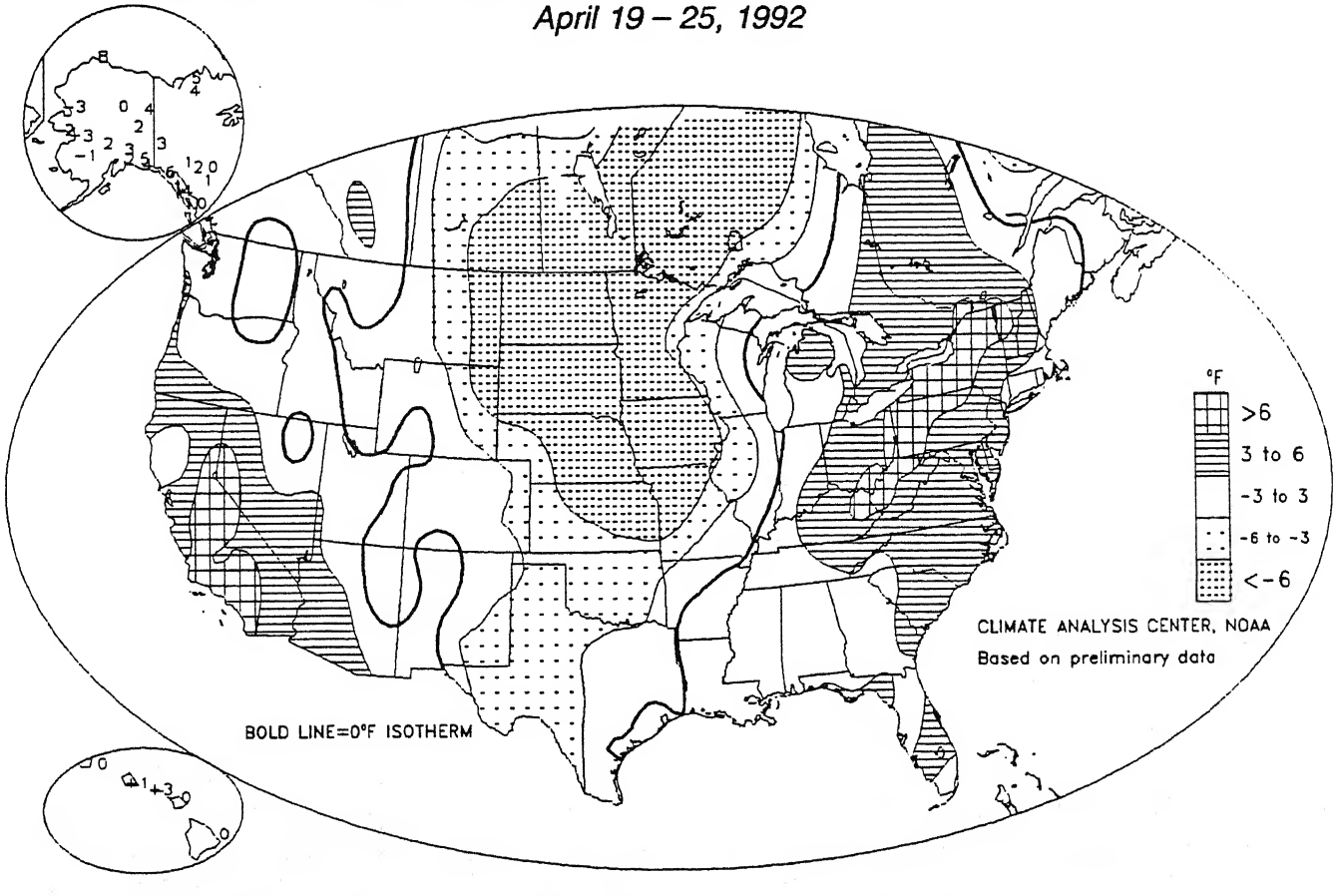


TABLE 2. *SELECTED STATIONS WITH TEMPERATURES AVERAGING 7.0°F OR MORE ABOVE NORMAL FOR THE WEEK OF APRIL 19 – 25, 1992*

STATION	DEPARTURE (°F)	AVERAGE (°F)	STATION	DEPARTURE (°F)	AVERAGE (°F)
BURBANK/HOLLYWOOD, CA	+9.6	70.8	MERCED/CASTLE AFB, CA	+7.7	68.6
MT WASHINGTON, NH	+9.4	34.9	ELMIRA/CHEMUNG CO, NY	+7.7	56.3
ERIE/INTL, PA	+9.1	57.4	SANTA BARBARA, CA	+7.6	65.0
SAN BERNARDINO/NORTON, CA	+9.0	70.3	PITTSBURGH, PA	+7.6	60.5
LONG BEACH, CA	+8.9	70.9	BRADFORD, PA	+7.5	53.2
BARROW, AK	+8.5	11.8	PHOENIX, AZ	+7.4	77.5
SYRACUSE, NY	+8.4	57.6	SAN DIEGO/LINDBERGH, CA	+7.4	69.2
BURLINGTON, VT	+8.3	54.2	MORGANTOWN, WV	+7.3	62.3
BLUE CANYON, CA	+8.2	53.3	CHARLESTON, WV	+7.2	65.0
MASSENA, NY	+8.1	54.4	ZANESVILLE, OH	+7.2	60.6
LOS ANGELES, CA	+7.9	68.2	YOUNGSTOWN, OH	+7.2	57.6
SANTA MARIA, CA	+7.8	62.6	ROME/GRIFFISS AFB, NY	+7.0	56.3

TABLE 3. *SELECTED STATIONS WITH TEMPERATURES AVERAGING 10.0°F OR MORE BELOW NORMAL FOR THE WEEK OF APRIL 19 – 25, 1992*

STATION	DEPARTURE (°F)	AVERAGE (°F)	STATION	DEPARTURE (°F)	AVERAGE (°F)
NORTH OMAHA, NE	−14.8	40.6	GRAND FORKS, ND	−11.6	33.3
PICKSTOWN, SD	−14.7	37.4	HURON, SD	−11.6	37.6
DEVIL'S LAKE, ND	−13.6	30.3	FT DODGE, IA	−11.6	40.5
SIOUX CITY, IA	−13.5	39.9	PIERRE, SD	−11.5	38.2
OMAHA/EPPLEY, NE	−13.4	42.2	NORFOLK, NE	−11.1	41.2
JAMESTOWN, ND	−13.2	32.1	SPENCER, IA	−10.9	39.0
SIOUX FALLS, SD	−13.0	37.0	LINCOLN, NE	−10.8	43.7
WATERTOWN, SD	−12.8	33.8	BISMARCK, ND	−10.7	35.6
FARGO, ND	−12.6	33.9	ABERDEEN, SD	−10.4	37.7
MINOT, ND	−12.2	32.8	DES MOINES, IA	−10.4	43.5
WARROAD, MN	−12.0	30.6	KANSAS CITY, MO	−10.1	49.8
KANSAS CITY/INTERNATIONAL,MO	−11.7	47.3			

DAILY CUMULATIVE PRECIPITATION
Brownsville, Texas

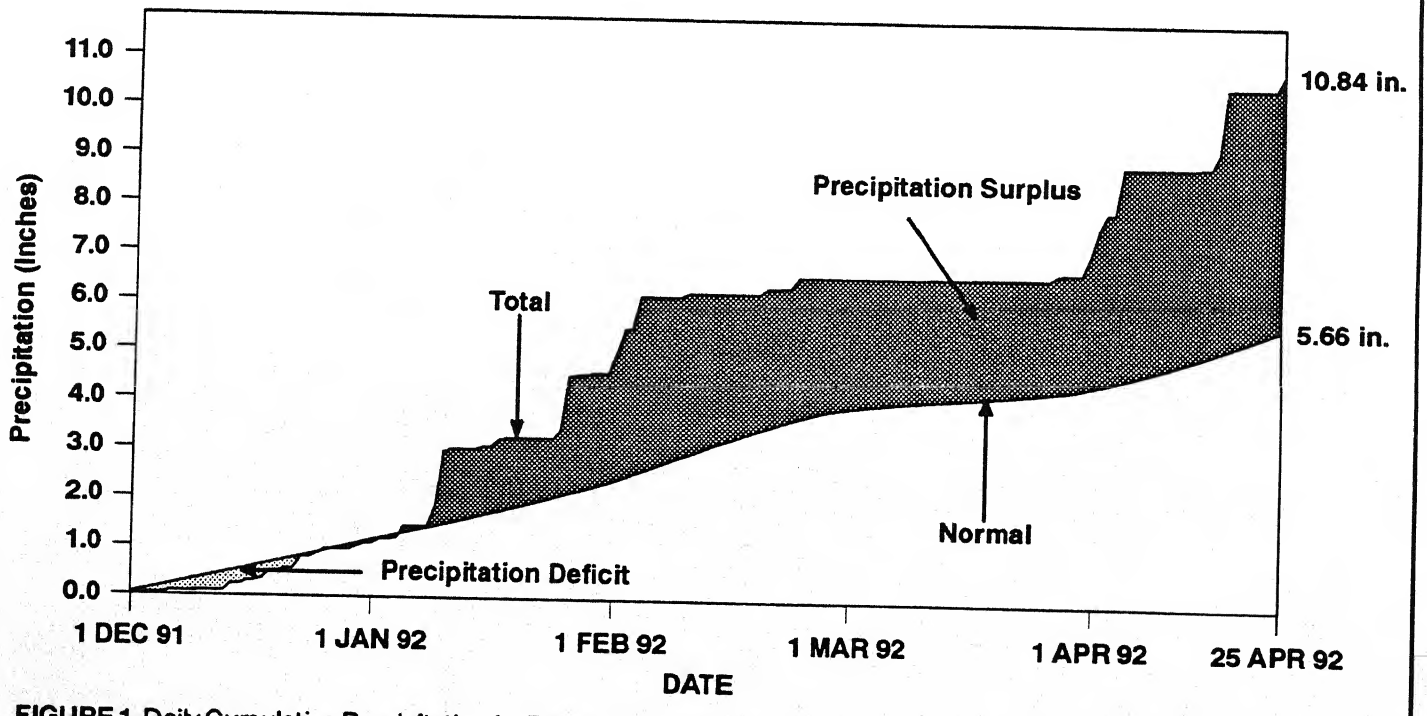
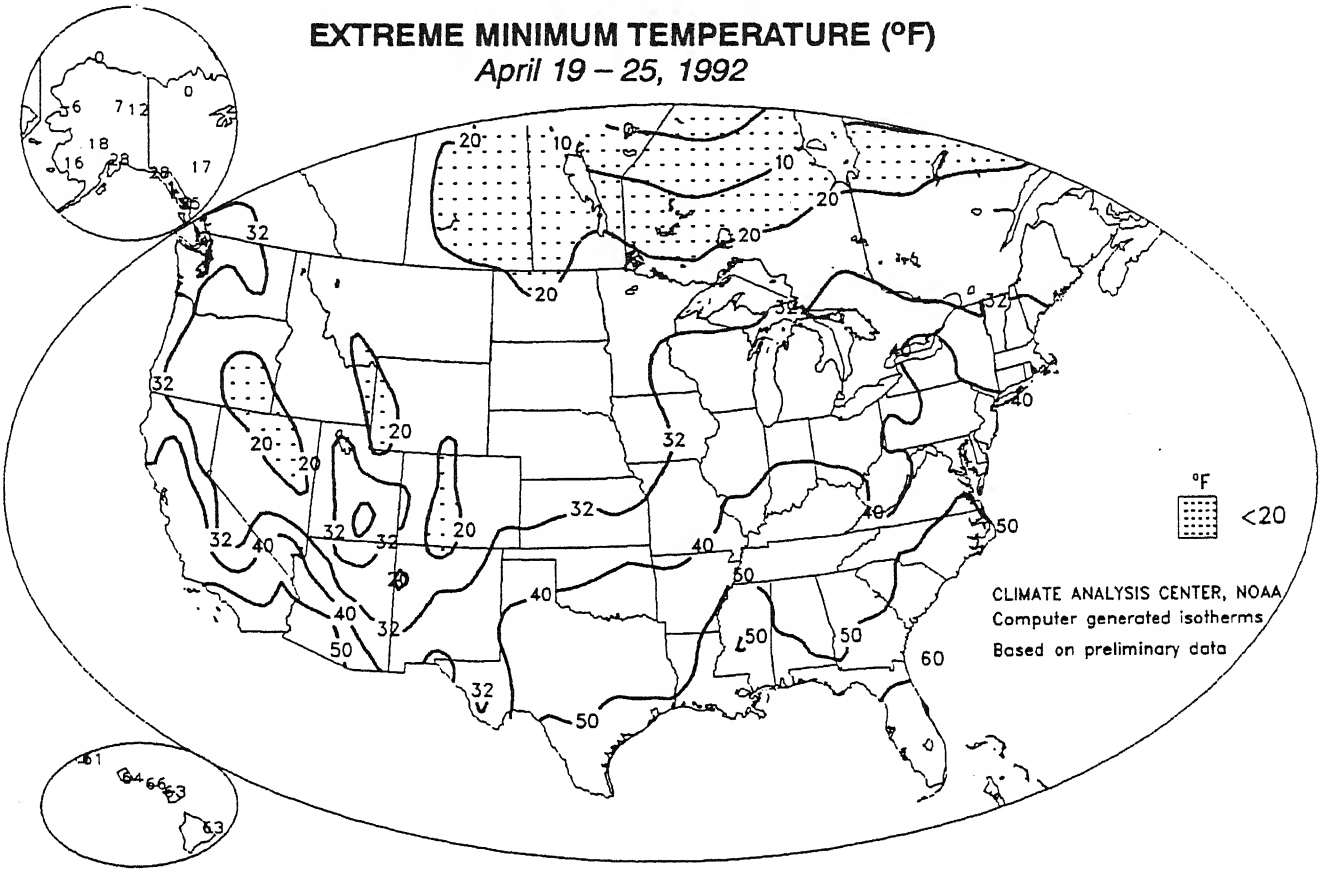


FIGURE 1. Daily Cumulative Precipitation for Brownsville, Texas from December 1, 1991 to April 25, 1992. Heavy thunderstorms gave southern Texas another two to four inches of rain last week. Although December precipitation in Brownsville was near normal, frequent heavy rains since the beginning of the year have yielded almost twice the normal rainfall.

EXTREME MINIMUM TEMPERATURE (°F)

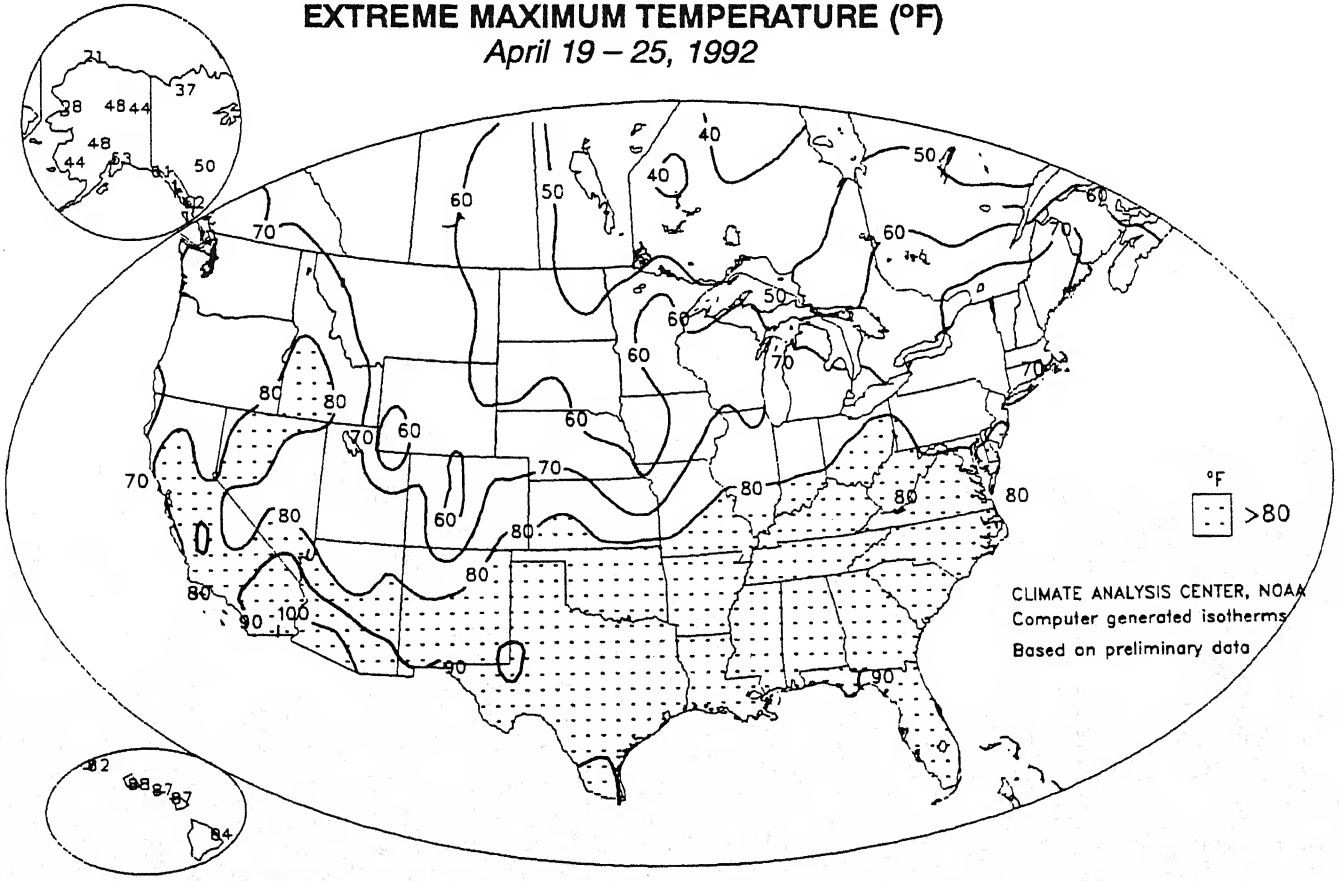
April 19 – 25, 1992



Subfreezing temperatures were widespread across much of the northern and central Great Plains and the Intermountain West. Lows dipped below 20°F in northern North Dakota and scattered areas of the Rockies and Great Basin (top). Temperatures above 80°F encompassed most southern states. Highs exceeded 90°F in isolated sections of Florida and Texas, and readings soared to 100°F in southwestern Arizona and adjacent parts of California (bottom).

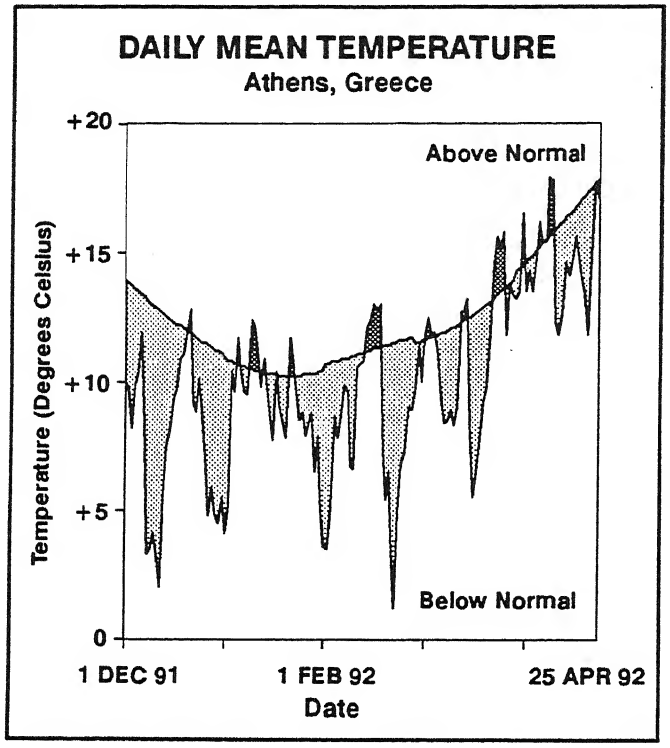
EXTREME MAXIMUM TEMPERATURE (°F)

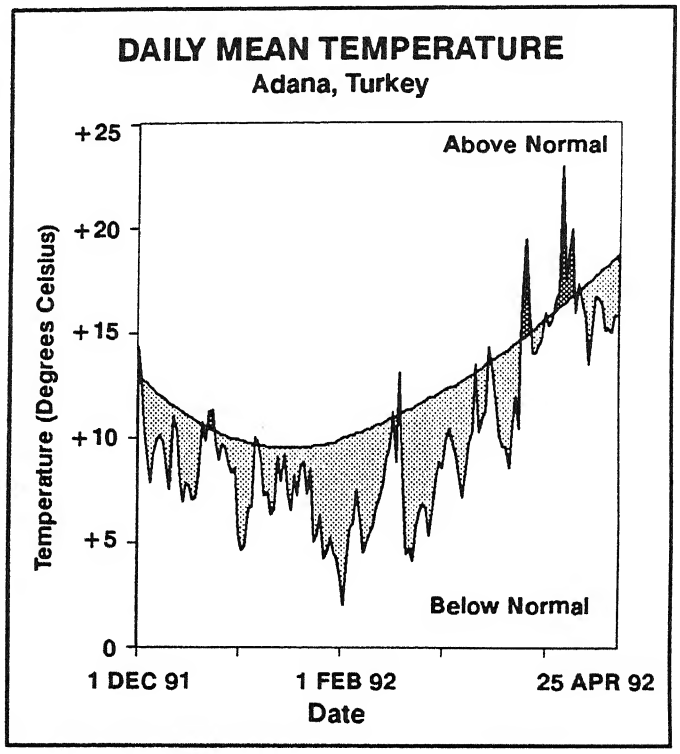
April 19 – 25, 1992



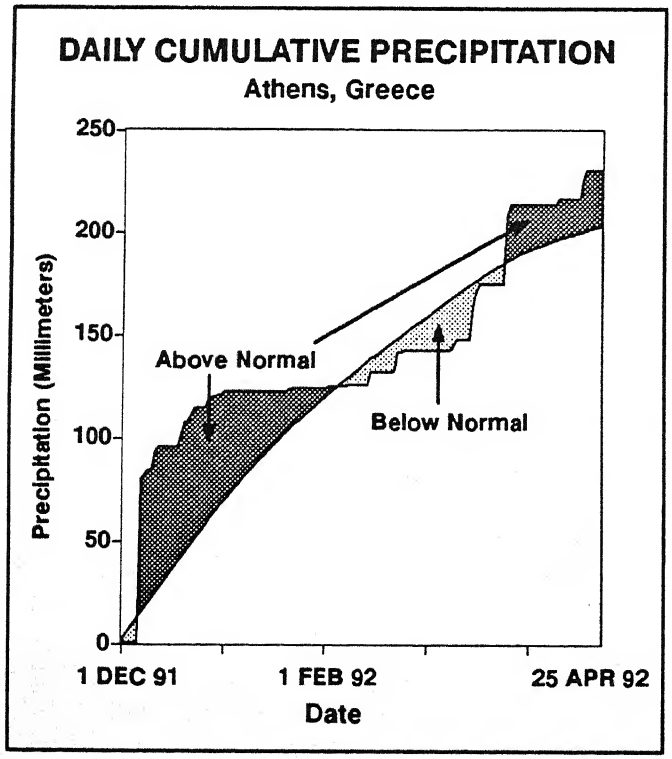
GLOBAL CLIMATE HIGHLIGHTS FEATURE

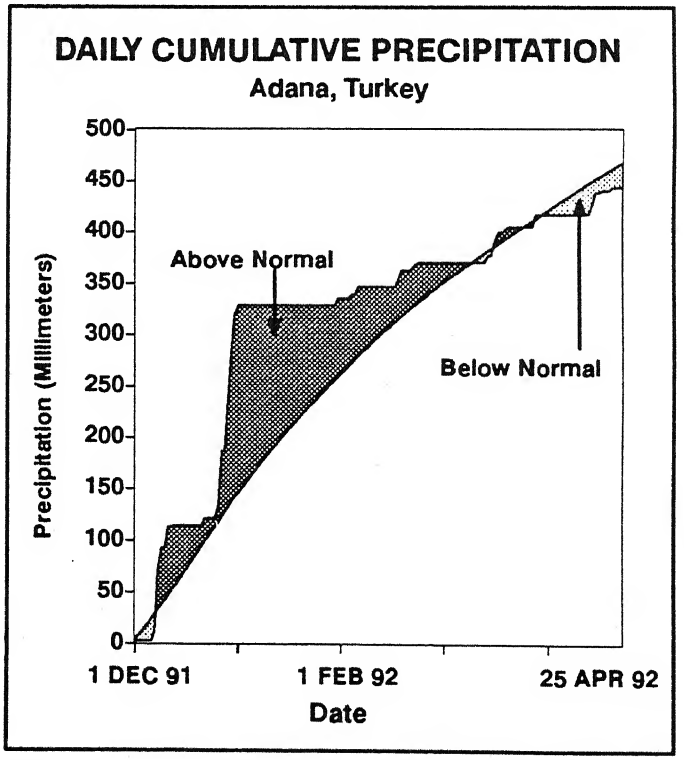
COLD CONDITIONS IN THE EASTERN MEDITERRANEAN





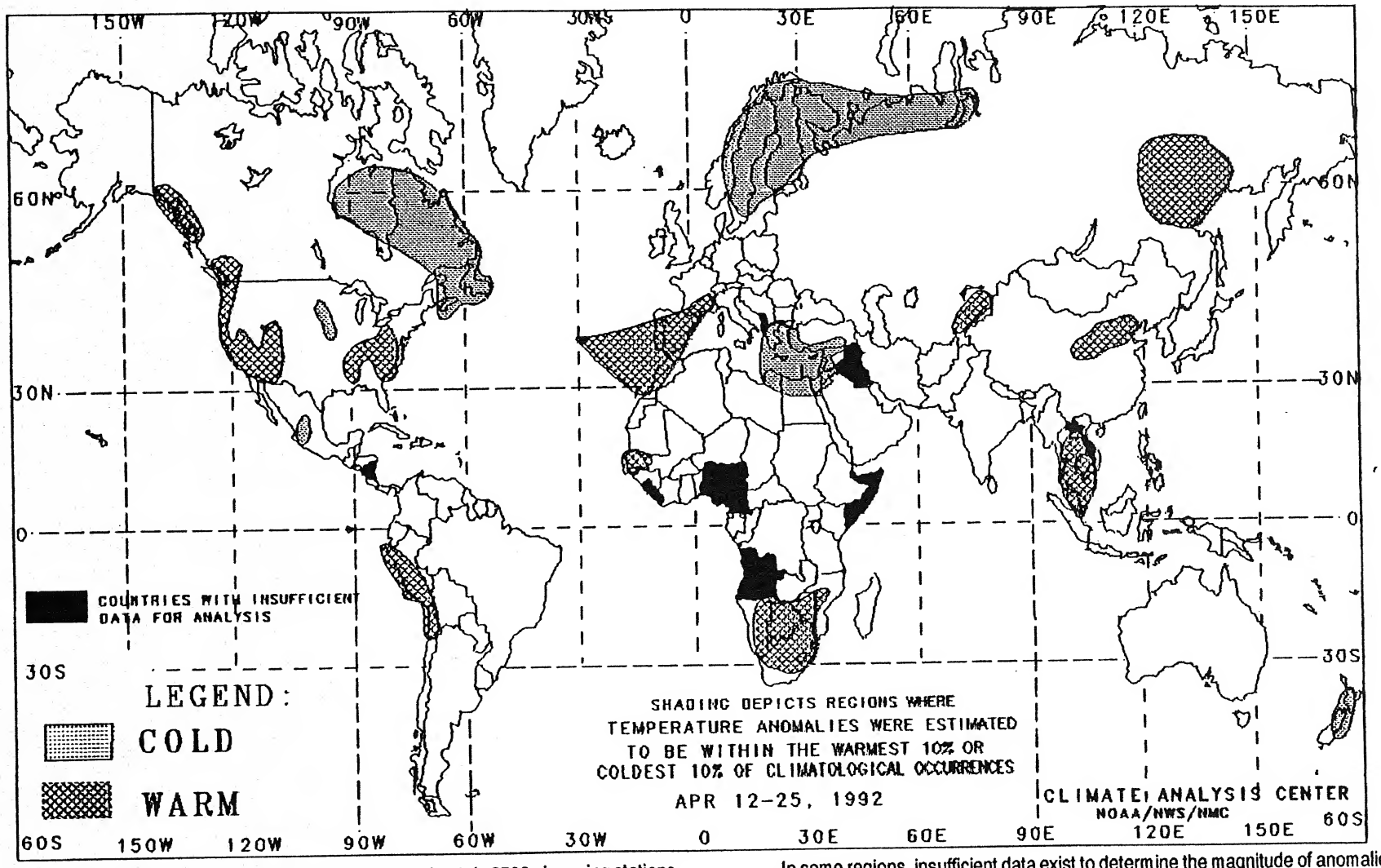
Unusually cold weather has prevailed throughout the eastern Mediterranean region since December 1991. Repeated invasions of bitterly cold air (top) resulted in heavy snow, abundant rain, and high winds throughout the area during December and early January. Although winter began unusually wet, a prolonged dry spell in late January and most of February resulted in near normal seasonal totals (bottom).





2–WEEK GLOBAL TEMPERATURE ANOMALIES

APRIL 12 – 25, 1992



The anomalies on this chart are based on approximately 2500 observing stations for which at least 13 days of temperature observations were received from synoptic reports. Many stations do not operate on a twenty–four hour basis so many night time observations are not taken. As a result of these missing observations the estimated minimum temperature may have a warm bias. This in turn may have resulted in an overestimation of the extent of some warm anomalies.

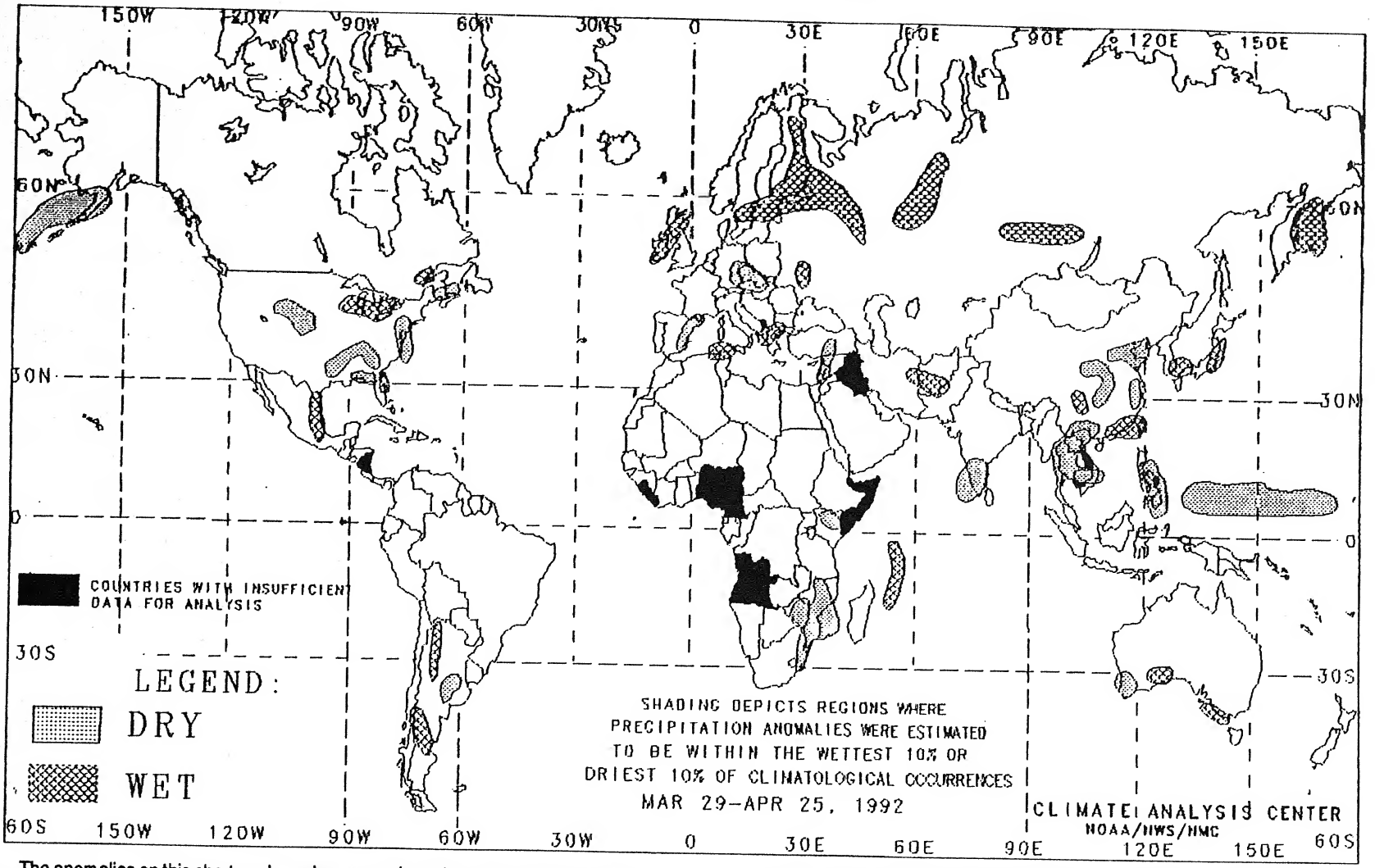
Temperature anomalies are not depicted unless the magnitude of temperature departures from normal exceeds 1.5°C.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

This chart shows general areas of two week temperature anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

4–WEEK GLOBAL PRECIPITATION ANOMALIES

MARCH 29 – APRIL 25, 1992



The anomalies on this chart are based on approximately 2500 observing stations for which at least 27 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the four week period is less than 20 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the total four week precipitation exceeds 50 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of four week precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.